

## PowerVerter 2000W 120V 12VDC RV Inverter/Charger with Auto-Transfer Switching, Hardwired, UL458

MODEL NUMBER: **MRV2012UL**



The MRV2012UL is a heavy-duty, DC-to-AC inverter with automatic line-to-battery transfer and integrated charging system that serves as an extended-run UPS, a standalone power source or an automotive inverter suitable for recreational applications.

### Features

#### Inverter

- MRV2012UL serves as an automotive or stationary DC-to-AC inverter with automatic line-to-battery transfer and integrated battery charger
- Supplies a 120V AC output from a 120V AC line power source or 12V DC battery source
- 2000 watts continuous AC output in inverter mode, 3600 watts continuous AC output in AC line power mode

#### Automatic Transfer

- 16.6 millisecond automatic transfer between line and battery power supports UPS protection during blackouts and voltage fluctuations for equipment compatible with a one cycle transfer time

#### Battery Charger

- 3-stage battery charger with user-selectable 25/100 amp operation and adjustable settings for wet/gel battery types with charger on/off capability; offers fast, reliable battery recharging
- Protected hardwire DC terminal posts safely accept heavy-gauge input wiring from attached battery bank
- Protected hardwire output passes 120V line power or inverter output through to connected equipment
- Extremely reliable large-transformer design tested to UL (USA & Canada) standards

#### Overload / Overtemperature Protection

- DoubleBoost inverter output supports momentary startup loads up to 200% of the continuous rating for up to 10 seconds
- OverPower inverter output supports longer duration overloads to 150% for up to 60 minutes under ideal battery and temperature conditions. (For best results, utilize OverPower usage as short of a duration as possible, ensure battery bank and cabling is able to provide full nominal DC voltage under load and allow inverter/charger to fully cool before and after OverPower usage.)

### Highlights

- Heavy-duty DC-to-AC, PWM sine wave inverter with automatic line-to-battery transfer and integrated charging system
- Functions as an extended-run UPS, a standalone power source or an automotive inverter
- 2000 watts continuous, 3000 watts OverPower™ and 4000 watts DoubleBoost™ inverter output
- 12V DC or 120V AC input; 120V, 60 Hz output (hardwired)
- 3-stage battery charger with user-selectable 25/100 amp, wet/dry cell operation
- Built-in Isobar® premium AC surge protection
- Unlimited back up time with user supplied batteries

### Package Includes

- MRV2012UL Inverter/Charger
- Instruction manual with warranty information
- Battery Temperature Sensor cable
- Conduit hanger



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- Resettable 25A charger AC input breaker and variable-speed cooling fan protect the inverter from load- and temperature-related failures
- Grounding lug properly connects the inverter/charger system to earth ground or vehicle grounding system
- Automatic overload and thermal shutoff safely turns off inverter as excessive loads or overheating conditions develop

**Operating Modes / Display LEDs**

- 3-position operating mode switch supports "AUTO" mode to enable automatic transfer between DC and AC modes, CHARGE-ONLY to maintain a full battery charge when AC is present without auto transfer and SYSTEM OFF settings
- Six front panel LEDs display AC/DC operational modes, overload status, DC voltage level, shutdown status and system fault status
- 4 configuration dip-switches support wet/gel battery charging profiles, charger enable/disable capability, selectable 75/85/95/105V AC low voltage auto transfer points during brownout conditions
- 4 additional configuration dip-switches support 4 levels of charger limiting relative to output load size, a battery equalization program and battery charger low/high settings

**Optional Features**

- Front panel connector enables remote off/on switching (requires optional APSRM4 remote control module, sold separately)
- Load-sensing control dial enables adjustable load threshold required to automatically turn the inverter on and off in DC mode as load conditions change
- Battery temperature sensor with 20-ft. (6.09 m) cable to prolong battery life by adjusting the charge level based on battery temperature
- Ignition Switch Control Jack can be used to connect the Inverter to your vehicle's ignition switch in order to automatically control the Inverter.
- Automatic Generator Starter jack enables user configuration of automatic generator startup as inverter batteries drop to 11.5V DC and generator shutoff as inverter batteries are recharged to 14.1V DC

**Construction**

- Moisture-resistant construction enables vehicular operation in high-humidity environments

## Specifications

OVERVIEW	
UPC Code	037332149121
INPUT	
Nominal Input Voltage(s) Supported	120V AC
Maximum Input Amps / Watts	DC INPUT: Full continuous load - 190A at 12V DC. AC INPUT: 38 amps at 120V AC with full inverter and charger load (20A max charger-only / combined input load to support charger and AC output is automatically controllable to 66%-33%-0% based on AC output I
Recommended Electrical Service	DC INPUT: Requires 12V DC input source capable of delivering 190A for the required duration (when used at full continuous capacity - DC requirements increase during Over-Power and Double-Boost operation). For automotive applications, professional hardware
Input Connection Type	DC INPUT: Set of 2 DC terminal posts. AC INPUT: hardwire. User supplies cabling. 0 gauge or larger (see manual). AC INPUT: hardwire
Voltage Compatibility (VAC)	120





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Shipping Weight (kg)	21.00
Unit Dimensions (hwd / in.)	8.000 x 10.500 x 17.500
Unit Dimensions (hwd / cm)	20.32 x 26.67 x 44.45
Unit Weight (lbs.)	43.2
Unit Weight (kg)	19.60
<b>ENVIRONMENTAL</b>	
Relative Humidity	0%-95% Non-Condensing
<b>LINE / BATTERY TRANSFER</b>	
Transfer Time (Line Power to Battery Mode)	16.6 ms (typical - compatible with many computers - verify transfer time compatibility of loads for UPS applications)
Low Voltage Transfer to Battery Power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage drops to 75V (user-adjustable to 85, 95, 105V - see manual)
High Voltage Transfer to Battery Power	In AC "auto" mode, inverter/charger switches to battery mode as line voltage increases to 145V
<b>FEATURES &amp; SPECIFICATIONS</b>	
Load Sensing	Optional load-sense function enables automatic inverter shutoff and startup as connected equipment is powered off and on. Front panel load-sense potentiometer can be set to shutoff or turn on inverter power in response to loads of any level, up to 150 watts.
<b>STANDARDS &amp; COMPLIANCE</b>	
Product Certifications	UL 458
Product Compliance	RoHS
<b>WARRANTY &amp; SUPPORT</b>	
Product Warranty Period (Worldwide)	30-month limited warranty

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